292A AMPLIFIER

DESCRIPTION

1. GENERAL

1.01 The 292A amplifier (Fig. 1) is intended for use in conjunction with a head telephone set for operators with impaired hearing. The amplifier is to be used only where a real need exists, such as in cases where its use would permit the continued effective employment of operators whose hearing losses interfere with their job performances.

1.02 The amplifier may be used in place of the 153B amplifier in all applications for which the 153B amplifier has been approved. The 292A amplifier may be used with the 60, 61, KS-19796, and KS-20778 lightweight head telephone sets on both operator telephone circuits and on 425-type network circuits. The amplifier is also designed for use with 52- and 53-type head telephone sets on operator telephone circuits only.

1.03 The amplifier may be used at positions with monitor keys and may be used with push-to-talk headsets and handsets. The amplifier is not subject to the restrictions given for the 153B amplifier in Section 024-108-100, paragraph 3.03.

1.04 The amplifier provides up to 20 dB of operator-controlled receive gain.

1.05 This amplifier should not be used for correcting any inadequate transmission due to excessive trunk or loop loss. Persons with normal hearing using the amplifier in such cases will hear excessive side tone which will result in a reduction of speech volume and thereby degrade an already unsatisfactory transmission condition.

1.06 When in use, the plugs of the amplifier are inserted into the jacks of the telephone circuit and the head telephone set is plugged into the jacks of the amplifier.

2. DESCRIPTION

2.01 The 292A amplifier (Fig. 1) consists of a printed circuit board with a polarity guard, input isolating transformer, frequency shaping network, and a three-stage transistor amplifier. The unit is encased in an ivory molded plastic housing with overall dimensions of approximately 1-1/2 inches wide, 2-1/4 inches high, and 5-1/2 inches long. The two plugs on the front are for plugging into the telephone jacks. The pair of jacks provided on the back of the amplifier accept the plug of a head telephone set.

2.02 A thumbwheel is provided on the back of the amplifier to control the receive gain from zero gain at maximum clockwise position to approximately 20 dB gain at the maximum counterclockwise position.

2.03 Protection against acoustic shock is provided by varistors and also by the overload characteristics of the amplifier. A schematic of the amplifier is given in Fig. 2.

3. MAINTENANCE

3.01 Normal maintenance procedures and practices for the plugs and jacks of the amplifier should be applied when these parts require maintenance. If trouble develops in the amplifier circuit, the amplifier should be returned to the Western Electric Company for repair.

© American Telephone and Telegraph Company, 1973
Printed in U.S.A.

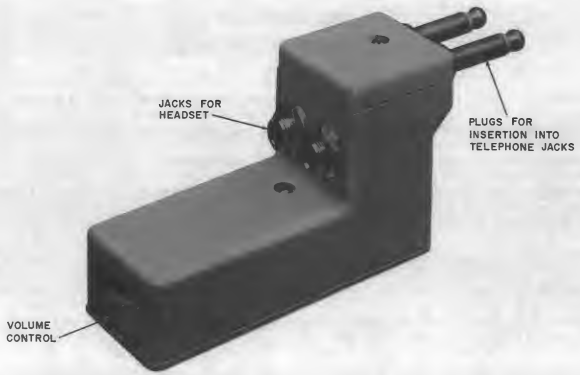

Fig. 1—292A Amplifier

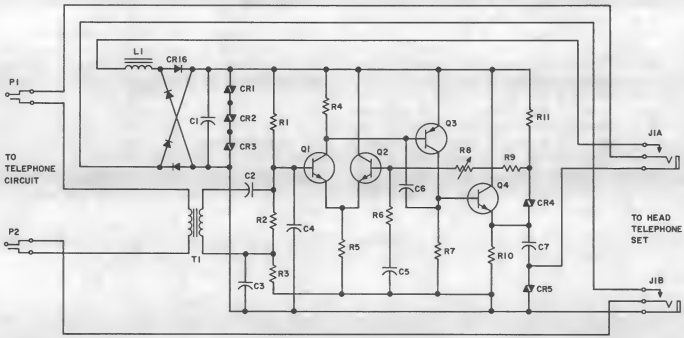

Fig. 2—292A Amplifier Schematic